



Río 51z™



WARNING:

- **NEVER** attempt to swim after a stalled RC boat!
- Never operate your RC boat while standing in the water.
- Never operate your RC boat in the presence of swimmers.
- Always use a Personal Flotation Device (PFD) when boarding and operating your retrieval craft, i.e. Jon boat or duck boat.
NOTE: Because of the sharp running hardware included with this RC boat, we do not recommend a rubber blow up raft.
- RC boat running hardware is very sharp. Be very careful when working on and around the metal parts.
- While the motor is running pay close attention to the propeller. Do not come in contact with the propeller at any time the engine is running or serious injury will result.
- AquaCraft products are to be used by ages 14 and over.

REQUIRED ITEMS

THE FOLLOWING TOOLS ARE REQUIRED (NOT INCLUDED) TO ASSEMBLE AND INSTALL THE BATTERIES IN YOUR RIO 51Z

- ☐ 5.5mm Nut Driver (HCAR1112)
- ☐ 7mm Nut Driver (HCAR1116)
- ☐ 3mm Hex Driver (HCAR1156)
- ☐ #2 Phillips Screwdriver (HCAR1024)
- ☐ #2 Slotted Screwdriver (HCAR1002)
- ☐ 10mm Wrench

NECESSARY COMPONENTS FOR OPERATING YOUR RIO 51Z

- ☐ Personal retrieval system.
- ☐ Friend to help you start and launch the boat. Besides, R/C boating is the most fun when you have a friend with you.
- ☐ 8 “AA” batteries
- ☐ Approved gasoline can (with standard pump gas)
- ☐ 2-cycle oil
- ☐ Graduated mixing cups (GPMR8056)
- ☐ Small funnel
- ☐ GrimRacer™ 50 weight cable oil (AQUB9550)
- ☐ GrimRacer Speed Grease drive cable lubricant (AQUB9500)

EXTRA SUPPLIES YOU MIGHT WANT TO HAVE WITH YOU DURING THE OPERATION OF YOUR RIO 51Z

As with any hobby, it is a good idea to assemble a useful collection of tools and accessories to bring along when you head out to the pond. Here are some items you will want to keep handy:

- ☐ Extra “AA” Batteries
- ☐ RX Balloons (AQUB9504)
- ☐ Threadlocking Compound (GPMR6060)
- ☐ Pliers (HCAR0625)
- ☐ Hobby Knife (HCAR0109)
- ☐ Metric hex wrench set (HCAR0521)
- ☐ Stubby Metric hex wrench set
- ☐ 5/8 [16mm] inch spark plug wrench

OTHER USEFUL ITEMS TO HAVE ON HAND:

- ☐ Waders or rubber boots
- ☐ Paper Towels
- ☐ Spray-On Cleaner
- ☐ Sunglasses
- ☐ Sunblock
- ☐ Folding table
- ☐ Lawn chairs
- ☐ First-Aid kit
- ☐ Cooler with plenty of ice and soda
- ☐ Canopy or shelter

THANK YOU!

Thank you for purchasing the Rio 51Z! We at AquaCraft know how exciting a new R/C boat purchase can be and we know you’re anxious to get started. Please take time first to read this manual carefully and completely before attempting to operate your model. This manual contains the instructions you need to safely operate and maintain your boat. Remember as with any hobby, there is a possibility of injury if this product is misused, so please be careful.

If for any reason you think that this model is not for you, return it to your local dealer immediately. PLEASE NOTE: Your hobby dealer cannot accept a return on any model after the final assembly sequence has begun.

MANUAL SPECIFICATION & DESCRIPTION CHANGES

All pictures, descriptions, and specifications found in this instruction manual are subject to change without notice. AquaCraft™ and Zenoah™ maintain no responsibility for inadvertent errors in this manual.

SAFETY PRECAUTIONS

- **Never ever attempt to swim after a stalled R/C boat. Do not get in the water for any reason to retrieve your boat. To aid you in retrieving a stalled R/C boat, set up a fishing reel with a tennis ball tied to the end of the line. Or better yet, get yourself a small Jon boat so you can row out and pick up your boat. Remember to use a PFD (personal flotation device) any time you enter your retrieval craft.**
- AquaCraft products are to be used by ages 14 and over.
- Do not touch the propeller anytime the engine is running. Pay equally close attention to items such as loose clothing, shirtsleeves, ties, scarves, long hair or anything that may become entangled in the spinning prop. If your fingers, hands, etc. come in contact with the spinning propeller, you may be severely injured.
- The speed and mass of this boat can inflict property damage and severe personal injury if a collision occurs. Never run this boat in the presence of swimmers or where the possibility of collision with people or property exists.
- Model engines generate considerable heat. Do not touch any part of your engine until it has cooled. Touching the muffler, cylinder head, or exhaust header may result in a serious burn.
- This boat is controlled by radio signals, which are susceptible to possible interference from other R/C transmitters, paging systems, or other electrical noise. Before turning your radio transmitter and receiver on, make sure no one else in the area is operating a radio on the same frequency (channel).
- Gasoline is poisonous. Do not allow it to come into contact with the eyes or mouth. Always store gasoline in an appropriate labeled container and out of the reach of children!

- Gasoline is highly flammable. Keep it away from open flame, excessive heat, sources of sparks, or anything else that might ignite it. Do not smoke or allow anyone else to smoke in close proximity to open gasoline containers. Make sure that gas lines are in good condition so that gasoline will not leak onto a hot engine causing a fire.
- Never operate your engine in an enclosed space. Model engines, like automobile engines, exhaust deadly carbon monoxide. Run your engine only in an open area.
- R/C models produce vibrations which will cause screws, nuts, bolts, etc, on your model to become loose over time. It is important to make sure that all hardware is secure before operating your model.
- In the event that weeds become entangled in the propeller, stop the engine before attempting to remove them.
- If your Rio 51Z should happen to stall, water currents will slowly carry it to shore. The bad news is that the boat could be carried to the opposite shore. When surveying areas to run your Rio 51, keep variables in mind such as wind direction, size of the lake, etc. It is not advisable to run R/C boats on any free-flowing bodies of water such as creeks or rivers.
- It's a good idea to use eye protection when starting and running your Rio 51Z.

SPECIFICATIONS

RIO 51Z BOAT SPECIFICATIONS

51.5" long [130cm]
 57" overall length [145cm]
 13.5" beam [34cm]
 8" tall [21cm]
 13" overall height [33cm]
 14 lbs, 4oz [6.4 Kilo]
 26 oz fuel capacity [768cc]
 20 minute run time per tank

ZENOAH® G260PUM ENGINE SPECIFICATIONS

Stroke: 1.1 in [28mm]
 Bore: 1.34 in [34mm]
 Displacement: 26cc (1.58 cubic in)
 Horsepower: 2.1
 Ignition Style: Spark
 Fuel: Gasoline/Oil mix 16:1
 Weight: 3.75 lb [1.7K]

RADIO SPECIFICATIONS

Transmitter: Tactic™ TTX240 with servo reversing and dual rate functions
 Receiver: Tactic TRX324
 Servos: Tactic TSX200 Throttle servo (56 oz-in at 6 volts)
 Tactic TSX201 Steering servo (90 oz-in at 6 volts)

WARRANTY & SERVICE

ENGINE WARRANTY SERVICE

Aquacraft will warrant your G260PUM engine for 90 days after purchase from defects in materials or workmanship of original manufacture. Aquacraft, at their option, will repair or replace at no charge the incorrectly made part. This warranty does not cover damage caused by crash, abuse, or misuse. To return your engine for repairs you will need to provide proof of purchase, such as your store receipt or an invoice. Send the engine to the address listed below or see the ZENOAH owner's manual for other warranty information.

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IN NO EVENT SHALL THE PURCHASER BE ENTITLED TO ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM THE USE, MISUSE OR INABILITY TO USE THE PRODUCT OR FROM DEFECTS IN THE PRODUCT.

This warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

Hobby Services
 3002 N. Apollo Drive, Suite 1
 Champaign, Illinois 61822
 Attn: Service Department
 Phone: (217) 398-0007
 9:00 am - 5:00 pm Central Time M-F
 E-mail: hobbyservices@hobbico.com

STANDARD REPAIR SERVICE

After the 90-day warranty has run out, you can still have your Rio 51Z repaired for a service fee by the experts at AquaCraft. To speed up the repair process, please follow these five simple steps:

1. It is best (recommended) to return the ENTIRE system, boat, radio and engine.
2. Make sure batteries are removed from the transmitter and receiver. Also make sure any gas and oil is drained from the tanks.
3. Send written instructions which include a list of all items returned and a THOROUGH explanation of the problem or problems needing service. Be sure to include your return address and daytime phone number. If you have access to e-mail please provide us with your e-mail address to help speed communication.
4. Send to Hobby Services at the address above. When shipping your item(s) to us, we recommend that you insure it and use a company that offers a tracking service (such as Federal Express Ground or UPS Ground). Our staff will carefully inspect your item and notify you of their findings, at which time you will be notified of your options for return, repair, or replacement. Please note that items sent back unrepaired will still carry a service charge and return shipping.

NOTE: Hobby Services accepts Visa®, Mastercard®, or personal check. We can return the item C.O.D., but additional charges apply.

PREPARE TO RUN

SPARK PLUG

The recommended spark plug is a EMR7H (ZENG7151). The plug gap should be .027" [or .7mm]. If the plug gap is incorrect, adjust it with a spark plug gapping tool. This spark plug uses a 5/8" [16mm] spark plug wrench to remove and install the plug.

GASOLINE

Your Zenoah G260PUM engine requires a 16:1 gasoline to 2-cycle oil mix ratio for best engine performance and sustained engine life.

- Follow the mixing direction on the oil container. Always use high-quality oil intended for 2-cycle engines. Prepare only the amount needed. Aged gasoline could damage the engine and cause it to overheat. We find that gasoline mix over 3 months should be discarded and replaced.
- Use only low octane, alcohol-free gasoline. The carburetor diaphragm will gradually deteriorate if you use gasoline with alcohol.
- Gasoline can go bad. Store your gasoline out of the sunlight and in a cool place. Bad gasoline is one of the most difficult problems to diagnose in engines. If you have tried everything you can think of to remedy an engine that is not running correctly, try using some fresh gas/oil mix.

ENGINE BREAK-IN

- Make sure that the engine has adequate cooling. When the boat is in motion, look at the port side for water spraying out the water cooling exit.
- During engine break-in it's best to use non synthetic oil like LawnBoy ashless oil. Mix 6 oz of oil to 1/2 gallon of gasoline. Run the boat in 8 minute intervals, allowing the engine to fully cool between runs. Use caution not to run the tank dry during the break-in process.
- Take your time breaking in your new engine. When having fun it can be hard to make short break-in runs but your patience will be rewarded with long engine life and great performance!
- **NOTE:** Be certain you have the high speed needle set for a slightly rich mixture setting. It is also good to keep in mind that no matter how much oil you mix with your gasoline, a lean mixture setting on the carburetor can ruin a good running motor during break-in or after.
- After the first tank break-in is complete and the motor has cooled, run the rest of the break-in gas through the engine. Allow the engine to fully cool between tanks. Do not run the tank dry.
- When it's time to make your next run, switch to a good quality synthetic oil like Klotz KL-200 (KSFP0200) mixing to a ratio of 8oz oil to one gallon of gasoline. This is the operating mixture and is recommended for the life of your engine.

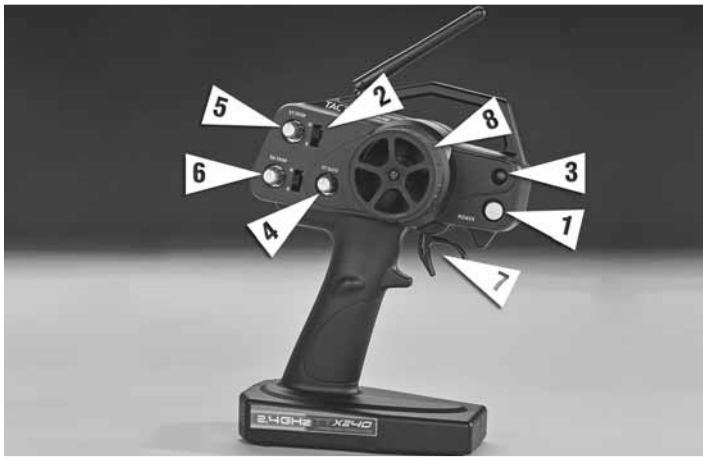
HOW TO CHECK FOR A PROPER NEEDLE ADJUSTMENT:

If your boat does not seem to be running clearly or smoothly, the best way to check for a proper needle setting is by reading (looking at) the spark plug. Remove the spark plug and look at the insulator firing nose. When new, the nose color is bright white. This bright white should become a light to medium tan color when the engine is performing at its best. If the nose insulator is a dark, wet black or black, the engine is overly rich and/or the spark plug gap is to large.

FINAL ASSEMBLY

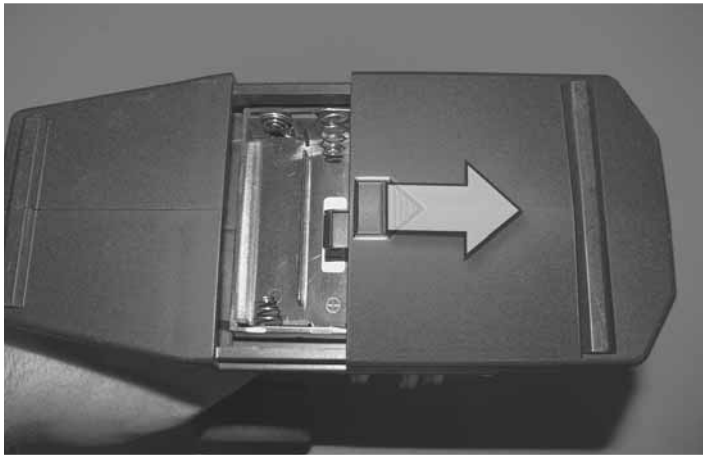


Some decals are installed on your boat for you. Extra decals provided in your kit allow you to customize your Rio 51Z. Simply peel and stick! See the photos on the box for decal placement example.



TRANSMITTER FEATURES

1. ON/OFF Switch
2. Servo Reversing Switches
3. Power Light (LED)
4. Steering Rate Adjustment Knob
5. Steering Trim Knob
6. Throttle Trim Knob
7. Throttle Trigger
8. Steering Wheel



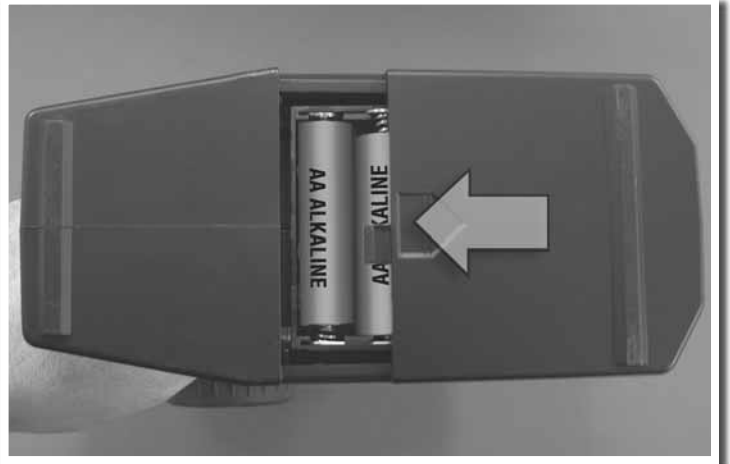
INSTALLING THE TX BATTERIES

1. Slide off the battery door on the bottom of the transmitter.



2. Install four (4) fresh "AA" batteries into the bottom of the transmitter in the configuration molded into the battery holder.

3. Reinstall the battery door onto the bottom of the transmitter.

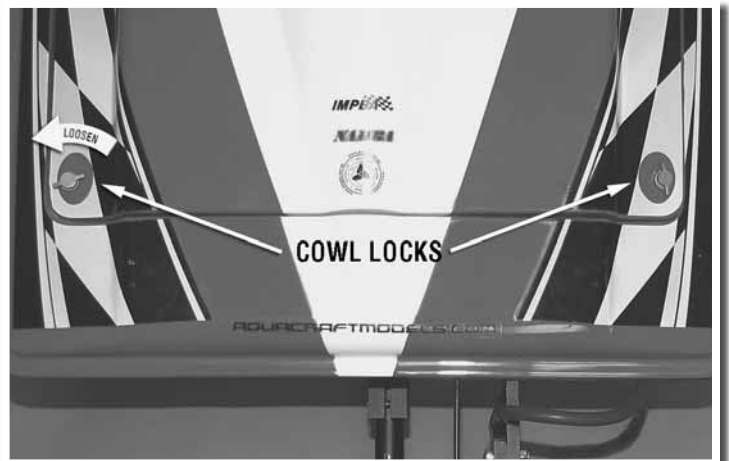


4. Turn the transmitter "ON" using the switch on the transmitter's side. The battery level indicator light (LED) should glow red. If the light is flashing, the batteries are low and need to be replaced.

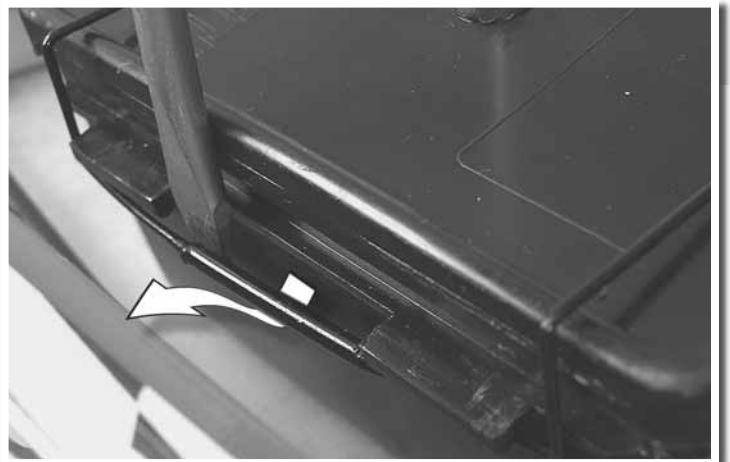


INSTALLING THE RX BATTERIES

1. Locate the cowl locks at the rear of the hatch. Turn the locks 1/4 turn to remove the hatch.

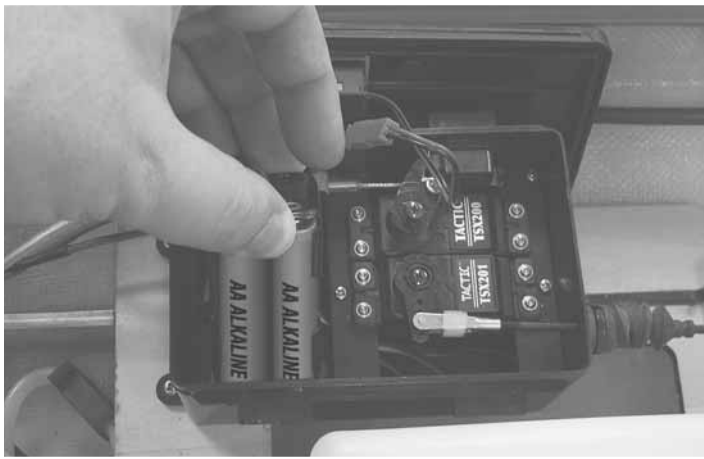


2. Using a standard screwdriver, remove the wire radio box lid retainer by gently prying the wire over the holding tabs on the side of the box and remove the radio box lid.

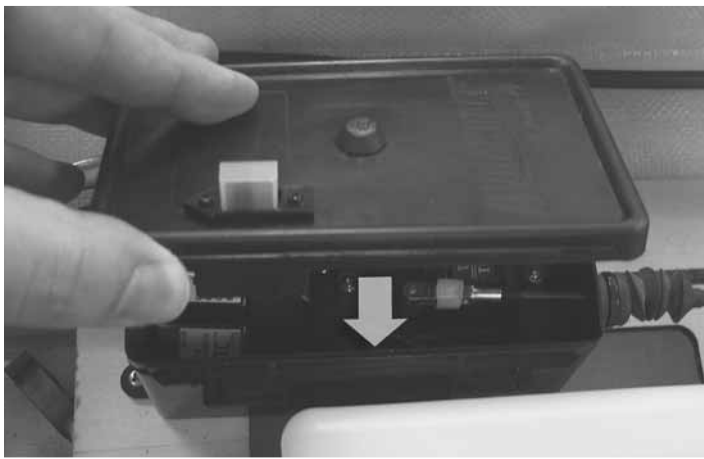




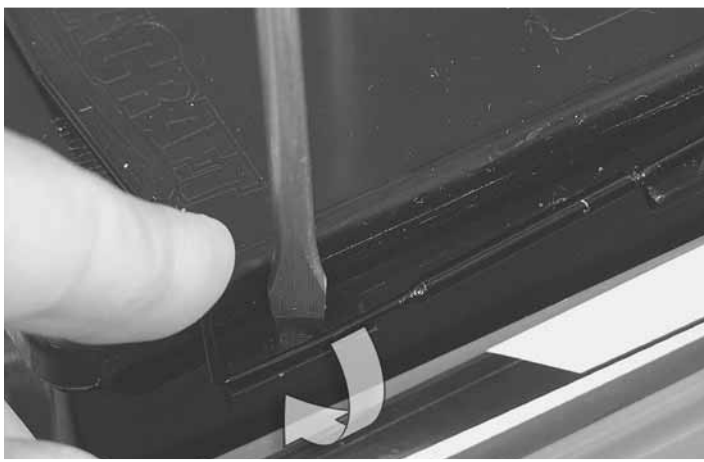
3. Place four (4) new “AA” batteries into the receiver battery holder. Be sure to follow the polarity diagram molded into the battery holder.



4. Replace the battery holder inside the radio box. Make sure that it will not interfere with any of the control linkages.



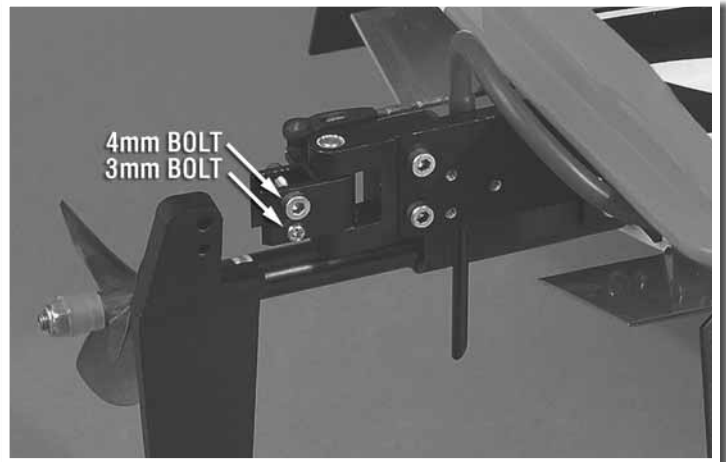
5. Replace the radio box cover and radio box lid retainer.



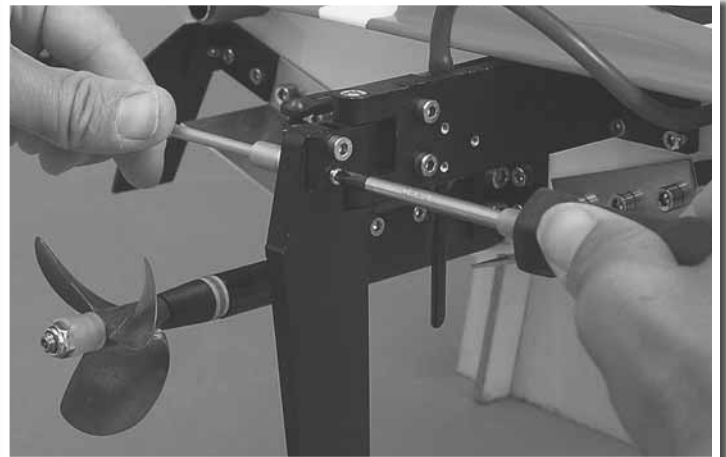
6. Using the screwdriver, carefully pry the retainer over the tabs.

INSTALLING THE RUDDER BLADE

1. Remove the 3mm and 4mm nuts and bolts from the rudder pivot bracket.



2. Insert the rudder into the rudder control arm assembly as shown. Replace the 4 x 15mm screw and 3 x 15mm screw and secure them with the 4mm and 3mm nuts, respectively.



CHECK THE RADIO SYSTEM

1. Stand behind the boat with both the transmitter and receiver turned on. Rotate the steering wheel to the left. The back of the rudder should move to the left.



2. Move the steering wheel to the right. The back of the rudder should move to the right. If this is not the case, simply move the steering servo reverse switch located on the front of the transmitter (2) to the other position.





3. Squeeze the throttle trigger on the transmitter; this should open the throat of the carburetor. This is the proper throttle arm position for full throttle.



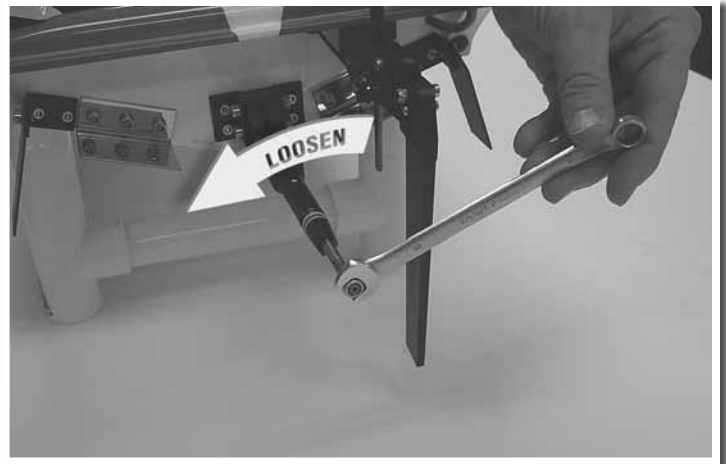
4. Idle position.



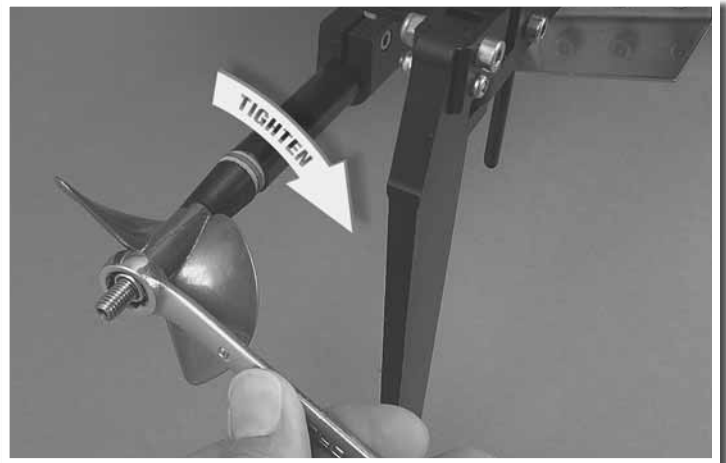
5. Off or stop position. If this is not the case, move the steering servo reverse switch located on the front of the transmitter (2) to the other position. **Note:** You might have to readjust the position of the throttle arm on the throttle servo to match the pictures.

INSTALLING THE PROPELLER

1. Use a 10mm wrench to remove the prop nut from the stub shaft.



2. Install the propeller on the shaft; replace the nut, making sure it is tight.



3. Assembly is now complete.



STARTING & LAUNCHING

There are several simple steps to starting the engine. It is a good idea to have another person hold the boat in place while you start the engine.

STARTING PROCEDURE

IMPORTANT: The propeller will begin spinning as soon as the engine starts! Be certain that the propeller is unobstructed; failure to do so will damage the prop.

1. Turn on the transmitter and raise the antenna.
2. Turn on the boat's receiver.
3. Fill the fuel tank with the appropriate gas to oil mixture.
4. Fill the cable oil reservoir with cable oil and open the cable oil shut off clip.
5. Press the clear primer bulb on the carburetor until gas begins to enter the bulb. **DO NOT OVER PRIME.**
6. Choke the engine by rotating the choke adjustment counter clockwise.
7. Pull the starter cord 3 times or until you feel the engine pop or skip.
8. Open the choke by rotating the choke adjustment clockwise.
9. Pull the starter cord until the engine starts.

NOTE: If the engine does not start by the 3rd or 4th pull repeat the above procedure. Once the engine has started put the cowl back in place and secure it with the cowl locks. **Be careful not to touch the spinning prop.**

TIPS & HINTS FOR DRIVING YOUR RIO 51Z

- Turning the steering dual rate knob increases or decreases the rudder movement. Your Rio 51Z does not require a lot of steering movement to allow the boat to turn. Keep this in mind as you learn to drive your boat.
- Due to prop rotation, it is the nature of model boats to make smoother right turns than left turns. Unlike full-scale boats, model boats like the Rio 51Z race and turn best in a clockwise direction.
- Launch the boat in water that is at least 12" deep and free of obstacles. Be sure to stay clear of the spinning prop during the launch. It is best to have a buddy launch your boat for you.
- Slowly advance the throttle and note if the boat has a tendency to turn right or left. Adjust the steering trim knob on your transmitter until the boat runs in a straight line when the steering wheel is at neutral.
- When finished running, push back on the throttle trigger to stop the engine. Retrieve the boat, remove the cowl, lock the oil shut off clip and turn off the receiver and transmitter (in that order).
- Take caution to not overheat the engine. Keep an eye on the water outlet on the port side of the boat. You should see water exiting the outlet when the boat is underway. It is normal for the water to take a few seconds to start flowing after launch.

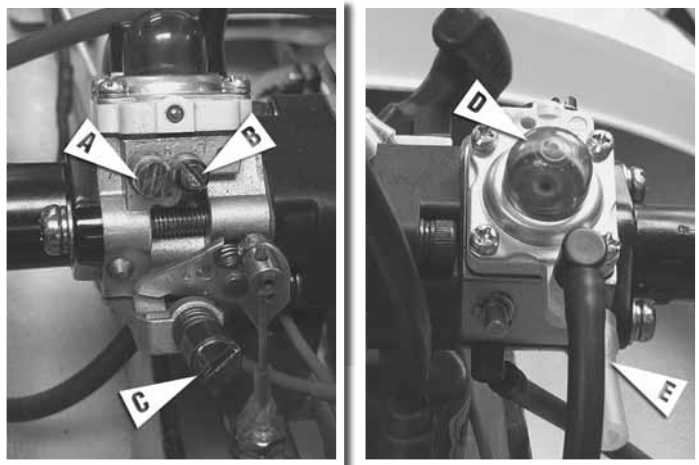
- If your engine should ever become submerged, remove the spark plug and pull the handle of the recoil starter several times until water has been expelled from the engine. Once you are positive that all water has been removed from the engine and the spark plug is completely dry, reinstall the spark plug and perform the starting procedure. This may take several attempts. Make sure you get the engine running again as this will remove any remaining water from the inside of the engine.
- Be sure to keep your driveshaft well-lubricated. Failure to do so may cause the cable to break. Remove and relubricate the driveshaft after each day of running.
- Do not use silicone fuel line as gasoline line. Use vinyl or neoprene rubber gasoline line instead.
- Total run time of the Rio 51Z is approximately 20 minutes (assuming you begin with a full tank of fuel). When you notice an increase in power, it means the fuel tank is nearly empty and it's time to head for shore.
- Windy conditions cause rough water that will affect the performance of your Rio 51Z and increase the chances of capsizing. Take it easy in rough water until you learn to drive the boat.

NEEDLE ADJUSTMENTS

WARNING: Never run an R/C boat engine at full throttle (over rev) with the boat out of the water. Damage can result.

Your engine comes preset from the factory, but due to altitude changes and the fuel you are using, your carburetor might need adjusting.

Always make high- and low-speed needle adjustments when the boat is out of the water and with the engine **not** running.



- A.** High-Speed Needle (HSN). The needle located on the left when viewing the boat from the front.
- B.** Low-Speed Needle (LSN). The needle located on the right when viewing the boat from the front.
- C.** Idle Adjustment Needle. It is located near the bottom of the carburetor.
- D.** Primer bulb.
- E.** Choke lever, located on the back of the carburetor.

It is not necessary to change the needle settings if the engine runs smoothly. Normally only the high-speed needle will need adjustment from time to time and only by a small amount.

Factory carburetor settings are:

- A. HSN 1-5/8 turns from the closed position ($\pm 1/4$ turn)
- B. LSN 1 turn from the closed position ($\pm 1/4$ turn)

If you run into problems tuning your engine settings, it is best to re-set the needles to the above settings and start over.

IDLE STOP ADJUSTMENT

The idle speed screw is used to adjust how fast the engine runs at idle.

Once the high and low speed needles are properly adjusted the idle speed can be set. To increase the idle speed turn the screw in (clockwise), to slow the idle speed turn the screw out (counter-clockwise).

TROUBLESHOOTING	
Problem: <ul style="list-style-type: none"> The engine hesitates when accelerated rapidly. The RPM increases at idling. 	Solution: <ul style="list-style-type: none"> The LSN is adjusted too lean. Open it up about 1/8th of a turn and try again.
Problem: <ul style="list-style-type: none"> The idle is not steady. 	Solution: <ul style="list-style-type: none"> The LSN is adjusted is too rich. Close it 1/8th of a turn and try again.
Problem: <ul style="list-style-type: none"> Engine stops at full throttle. Engine sags when accelerated rapidly. Engine sags with the boat at full speed 	Solution: <ul style="list-style-type: none"> The HSN is too lean. Open it up 1/16th of a turn and try again.
Problem: <ul style="list-style-type: none"> Your engine does not reach full RPM. Carbon build-up appears consistently on your spark plug. 	Solution: <ul style="list-style-type: none"> The HSN is too rich. Turn it in 1/16th of a turn and try again.

RACING

Although it is very enjoyable to run the Rio 51Z by yourself or with a buddy, the real fun and excitement of R/C boating is experienced when you get involved in racing. Racing against other boats is much different than running your boat alone. The following suggestions will hopefully provide helpful strategies when racing a model boat.

A good set-up for running alone may not be the best for racing. Race water conditions create challenges different from running alone and water conditions constantly change during a race. Five or six boats racing against one another will create rough water on the race

course. To compete successfully, it may be necessary to “tighten” the ride characteristics. This can be accomplished by adjusting the angle of the strut or trim plates.

Wakes caused by other boats can upset the balance and ride characteristics of even a well trimmed model boat. When running down the straight-aways, don’t follow in another boat’s wake. Wakes generated by other boats while entering and negotiating a corner are especially dangerous. Cutting across a wake when entering a corner can cause the boat to “hook” (spin out).

Racing other boats through a corner may be a competitor’s greatest challenge, especially the first corner after the start of a race. The boat entering the corner first has the task of holding its position (often called “holding your lane”) through the corner. The trailing boats must then attempt to hold their lanes, too.

NATIONAL MODEL BOATING ORGANIZATIONS

There are two national model boating organizations in the United States and Canada:

IMPBA or International Model Power Boat Association
www.impba.net

NAMBA or North American Model Boat Association
www.namba.com

Each of these organizations has its own rules governing model boat racing, sanctioned events and recognized records. Organized model boat racing is offered at both regional and national levels. Location of clubs, race dates and locations, membership applications, and other information can be obtained through their respective web sites.

A good source of information regarding all aspects of model boat operation is:

International Waters
www.intlwaters.com

MAINTENANCE

When you are through operating your boat for the day, be sure to perform these basic maintenance procedures. This will prolong the life of the Rio 51Z and help to ensure trouble-free running.

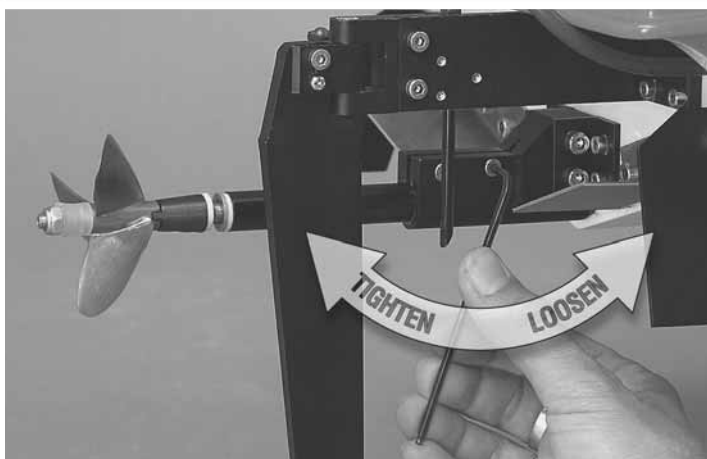
- Wipe down the entire boat, inside and out, with spray-on cleaner and a paper towel. If water is left in the boat, it could get into the engine, potentially causing the piston ring to rust.
- Leave the cowl off the boat overnight to let any water evaporate from the hull.

ENGINE MAINTENANCE AND STORAGE

- After a day of running, start your engine and choke it while it is running to get a lot of fuel into the engine. Run it for about 30 seconds, constantly choking the engine. Afterwards it is a good idea to cover the inlet to the carburetor to keep foreign materials out and moisture from entering the motor.
- For long term (winter) storage it is a good idea to flood the engine as described above as well as coating the inside of the engine with After Run Oil 2 oz (HCAP3000)
- Before transporting your model, remove all of the gasoline from the tank and lines and make sure your oil line shut off clip is locked.

RADIO BOX MAINTENANCE

- When finished running, open the radio box and leave the radio box lid off overnight to allow any water to evaporate. Remove standing water by pulling out the drain plug and draining away any water that might have entered the hull.
- Remove and toss out the old batteries.



GREASE THE DRIVESHAFT

Remove the driveshaft by loosening the two 4mm screws from the outer strut housing.



Slide the inner strut assembly with shaft out of the boat. Wipe away any oil and grease.



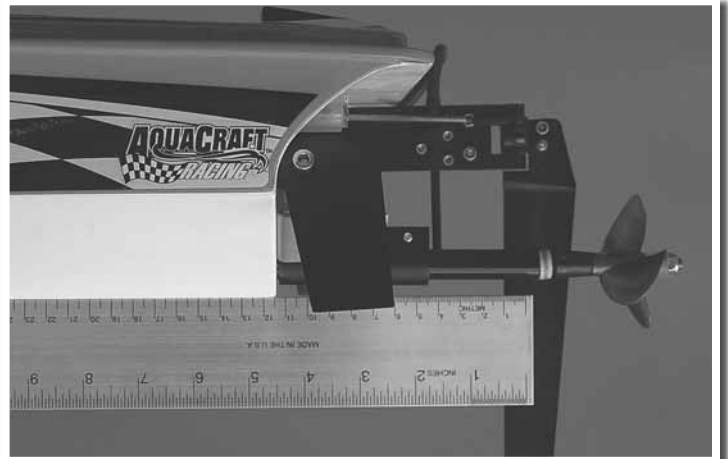
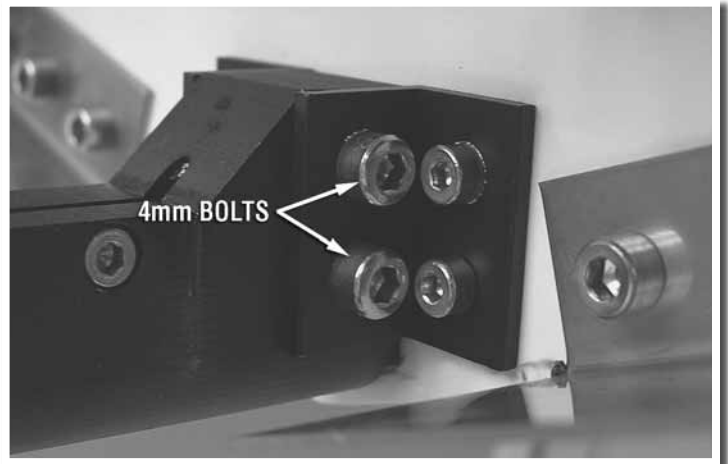
Re-grease the shaft using GrimRacer Speed Grease (AQUB9500). Re-install the shaft and inner strut housing, making sure the two 4mm screws are tight.

HULL TUNING TIPS

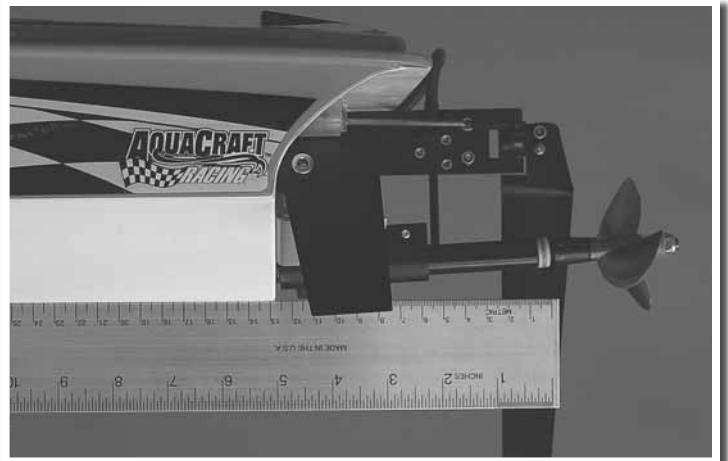
To change the thrust angle use a 4mm Allen wrench to loosen the two large screws on the side of strut mounting brackets. Once loose you can rotate the strut up or down depending on the type of handling you are looking to achieve.

As an initial starting point, try running the Rio 51Z with a neutral propeller thrust angle. This can be checked by placing a straightedge along the bottom of the hull and checking its relation to the prop shaft.

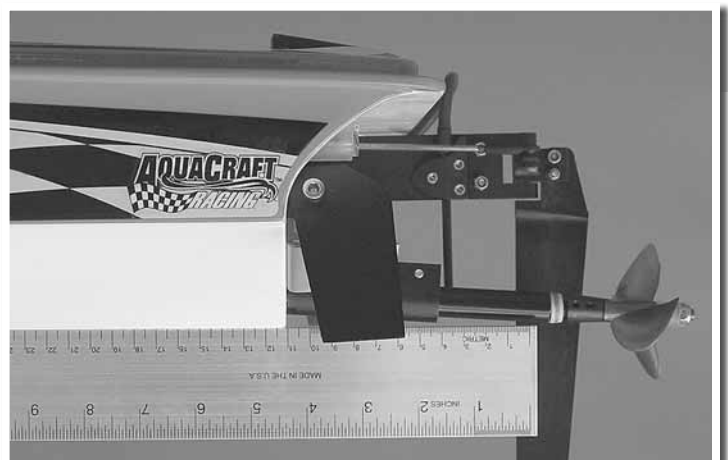
Neutral Propeller Thrust: This setting provides thrust without letting it affect the ride attitude of the hull (the bow's tendency to ride up or down).

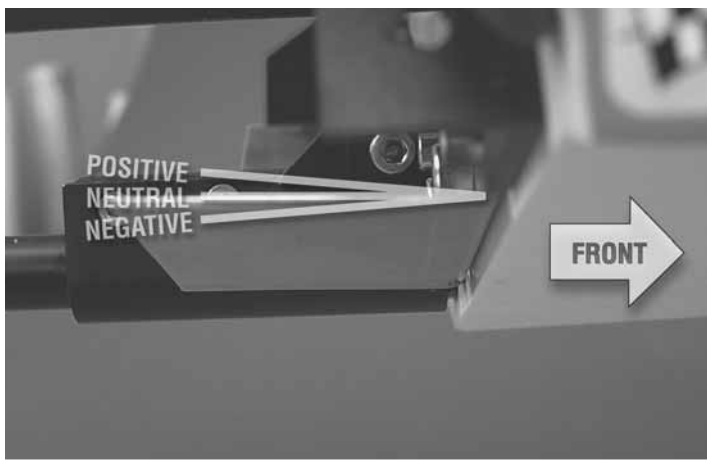


Positive Propeller Thrust: This setting causes the bow to run high. This makes the boat run faster but looser at the same time. In rough water this can cause the boat to blow off (crash by having the bow of the boat lift off the water).



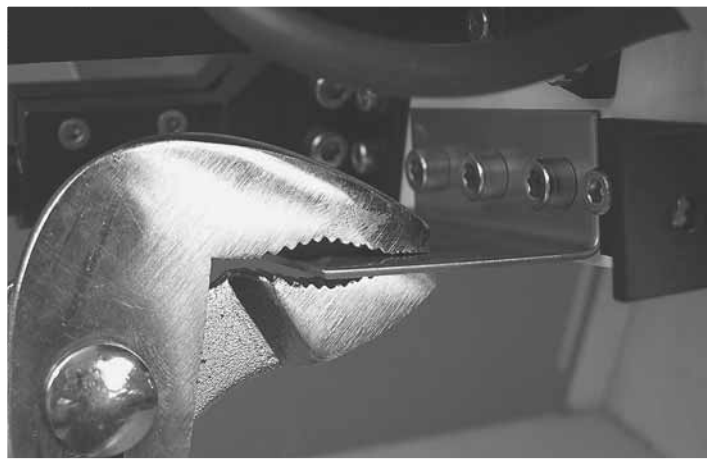
Negative Propeller Thrust: Causes the bow to run low (flat on the water). This reduces speed and may cause the boat to stuff (crash by having the boat's bow tuck under water).



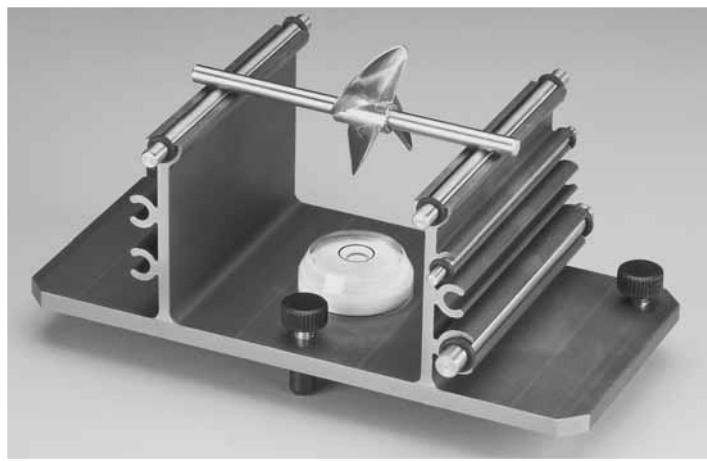


ADJUSTING THE TRIM PLATES

You can also use the trim plates to adjust the ride of the boat. Bending the plates down will help keep the boat from porpoising (the front bouncing up and down). Bending them up will make for a looser (faster) ride but at the same time make the boat unstable. It is best to make small adjustments one at a time.



You can use a large pair of pliers to adjust the trim plates. Remember, just tweaking the plates as a very small adjustment can drastically change the way the boat runs.



BALANCING THE PROPELLER

Always use a balanced prop. An unbalanced prop will cause high levels of vibration that may be harmful to your driveshaft and engine.

WARNING: Make sure you use a dust mask anytime you are working on your propeller. Ingesting airborne particles from the propeller is hazardous to your health.

Go to www.aquacraftmodels.com to learn more about balancing your propeller.

REPLACEMENT PARTS

To order replacement parts for the Rio 51Z, use the order numbers in the Replacement Parts List that follows. Replacement parts are available only as listed and can be purchased from hobby shops or mail order/Internet order firms. Hardware items (screws, nuts, bolts) are also available from these outlets. If you need assistance locating a dealer to purchase parts, visit www.hobbico.com and click on "Where to buy." If this kit is missing parts, contact **Hobbico Product Support**.

Order #	Description
AQUB6207	Cowl – Blue
AQUB6208	Cowl – Yellow
AQUB6209	Cowl – Red
AQUB6323	Decal Sheet
AQUB6420	Cable Oiler Collar
AQUB6507	Engine Drive Pulley (Rio 51Z)
AQUB6598	Iso-Mount (Rio 51Z)
AQUB6905	Fuel Tank w/Cap
AQUB6906	Oil Tank w/Cap
AQUB6907	Oil line Clip
AQUB7200	Kill Switch Servo Horn
AQUB7201	Engine Kill Switch (Rio 51Z)
AQUB7767	Prop Nut
AQUB7874	1/4" Flex Cable Propshaft (Rio 51Z)
AQUB7893	1/4" Engine Cable Coupler
AQUB8608	Radio Box
AQUB8609	Radio Box Spring Wire
AQUB8715	Rudder Linkage
AQUB8716	Rudder Throttle Ball Stud
AQUB8717	Rudder Blade
AQUB8718	Rudder Hinge Pin
AQUB8719	Rudder Bracket
AQUB8720	Rudder Arm
AQUB8721	Rudder Transom Bracket
AQUB8722	Rudder Mount Bolt / Nuts
AQUB8804	Strut Thrust Washers
AQUB8806	Strut Housing
AQUB8807	Inner Strut Assembly
AQUB8809	Strut Mounting Brackets
AQUB8851	Switch Mounting Plate
AQUB9002	Throttle Cable Mount (Rio 51Z)
AQUB9003	Throttle Cable (Rio 51Z)
AQUB9026	Tow Hook Large
AQUB9250	Water Pick Up Assembly
AQUB9251	Water Pick Up Tube
AQUB9252	Water Pick Up Bracket
AQUB9270	Tank Bungee Cord
AQUB9275	Transom Hardwood Mounting Plates
AQUB9524	1/4" Drive Dog
AQUB9526	Turn Fin Transom Large
AQUB9527	Turn Fin Mounting Bracket
AQUB9528	Trim Plate SS Large
AQUB9785	GrimRacer 65 x 100 2-Blade Metal Prop (Stock)
SUPG1565	Zenoah 260PUM Muffler

UPGRADE COMPONENTS FOR THE RIO 51Z:

AQUB9785	GrimRacer 67 x 105 3-Blade Metal Prop
FUTM1383	5-cell 6V 600mAh NiCd Hump Pack
FUTM4350	Receiver Switch
DXTTP4086	Receiver Pack Charger

ZENOAH G260PUM REPLACEMENT PARTS LIST

ZENG1675...	Carburetor WT-644
ZENG1680...	Coil (Red)
ZENG1699...	Cover WT-644
ZENG1700...	Crankcase Bolt M5x30
ZENG1701...	Crankcase
ZENG1702...	Crankcase Gasket
ZENG1750...	Crankshaft Bearing
ZENG1751...	Crankshaft Bearing Shim
ZENG1752...	Crankshaft
ZENG1753...	Crankshaft Key
ZENG1754...	Crankshaft Seal 12x22x7
ZENG1755...	Crankshaft Seal Front 12x28x7
ZENG1756...	Crankshaft Snap Ring
ZENG1900...	Cylinder
ZENG1901...	Cylinder Gasket
ZENG1902...	Cylinder Head Bolt M5x20
ZENG2000...	Diaphragm WT-644
ZENG2005...	Diaphragm Pump WT-644
ZENG2336...	Engine Carburetor Gasket
ZENG3010...	Gasket Diaphragm WT-644
ZENG3015...	Gasket Pump WT-644
ZENG3400...	Head Jacket
ZENG3700...	Ignition Coil
ZENG3701...	Insulator
ZENG3702...	Insulator Gasket
ZENG4000...	Jacket O-Ring 3x40
ZENG4001...	Jacket O-Ring 1.5x15.5
ZENG4002...	Jacket Bolt M3x8
ZENG4700...	Lever WT-644
ZENG5010...	Mount Plate
ZENG5015...	Mount Plate Screw M5x16
ZENG5400...	Needle High Speed WT-644
ZENG5500...	Needle Low Speed WT-644
ZENG6000...	Pin
ZENG6100...	Piston
ZENG6150...	Piston Stop Tool
ZENG6200...	Plug Cap
ZENG6205...	Plug Socket Wrench
ZENG6310...	Pulley
ZENG6325...	Pump WT-644
ZENG6675...	Recoil Assembly
ZENG6680...	Cover Coil Screw M4x14
ZENG6700...	Ring
ZENG6800...	Rotor
ZENG7020...	Screw M4x22
ZENG7030...	Screw M5x55
ZENG7100...	Spacer 5x10x1.6
ZENG7150...	Spark Plug CMR6H
ZENG7151...	Spark Plug CMR7H
ZENG7152...	Spark Plug RZ7C
ZENG7200...	Spring Spark Plug Cap
ZENG7201...	Spring WT-644
ZENG7202...	Spring LS Needle WT-644
ZENG7203...	Spring HS Needle WT-644
ZENG7400...	Tube
ZENG8010...	Valve Inlet WT-644
ZENG8025...	Venturi WT-644
ZENG8350...	Water Nipple Joint
ZENG8400...	Wrist Pin Bearing
ZENG8405...	Wrist Pin
ZENG8410...	Wrist Pin Snap Ring
ZENG8415...	Wrist Pin Washer